

DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT

D.G.E.I.S.

**BOGHT ROAD - COLUMBIA STREET AREA
TOWN OF COLONIE, NEW YORK**

SUPERVISOR, FREDERICK G. FIELD, JR.

Lead Agency:

**TOWN OF COLONIE PLANNING BOARD
PETER PLATT, CHAIRMAN**

272 Maxwell Road
Latham, New York 12210

Contact Person:

ROBERT MITCHELL

Engineering & Planning Services Department
272 Maxwell Road
Latham, New York 12210
(518) 482-0248

Prepared By:

**CLOUGH, HARBOUR & ASSOCIATES
ENGINEERS & PLANNERS
24 Aviation Road
Albany, New York 12205
(518) 458-7795**

Contact Persons:

Larry Woods, AICP
Jean Loewenstein

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DEIS EXECUTIVE SUMMARY

EXISTING CONDITIONS:

The purpose of this Draft Generic Environmental Impact Statement (DGEIS) is to evaluate socioeconomic and physical environmental impacts to the study area associated with a reasonable development scenario for a twenty (20) year planning period. Impacts associated with current development proposals (\pm seven hundred sixty (760) single family residential units and one (1) commercial proposal) as well as projected development will be evaluated. Also examined will be appropriate mitigation measures to minimize identified impacts as well as potential costs for mitigation.

The Boght Road - Columbia Street area is located in the northeastern portion of the Town of Colonie, New York. Generally it is bordered by the Town bike path to the north, the Northway to the west, Alternate Route 7, Troy-Schenectady Road to the south, and the Delaware and Hudson railroad and Town border to the east.

PROJECT NEED:

A major portion of the undeveloped land in the Town of Colonie can be found in the project study area. As a result, the Town has authorized the preparation of this document to evaluate development related impacts. Ultimately, the findings resulting from this process can be used as a planning tool for minimizing impacts as well as assessing necessary capital improvements to accommodate potential future growth.

This DGEIS will provide information to facilitate orderly growth in the study area. It will also identify the necessary capital improvements to

transportation systems, infrastructure, recreation facilities, schools, and municipal services.

SOCIOECONOMIC AND PHYSICAL ENVIRONMENTAL SETTING AND IMPACT ANALYSIS

Demographics:

Since the 1950's the Town of Colonic has experienced significant growth. During the period between 1950 and 1980, the Town-outside-Village population increased from twenty-five thousand one (25,001) to sixty one thousand seven hundred twelve (61,712) or over one hundred forty-six percent (146%). The 1990 population has been projected to be sixty-six thousand five hundred fifty (66,550), (Source: Capital District Regional Planning Commission). Based on population projections by the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Commerce and the Capital District Regional Planning Commission (CDRPC) it is expected that the 2010 population of the Town-outside-Village-area will be seventy-two thousand seven hundred (72,700).

During this period of rapid growth in the Town, the population in the study area has remained relatively stable. According to the U.S. Census, the 1980 Boght Road - Columbia Street population was three thousand six hundred fifty nine (3,659). Based on recent development pressure it is anticipated that the population in this area may be as high as fourteen thousand seven-hundred ninety (14,790) in the year 2009. The growth in this portion of Town will be greater than the remaining areas of the Town and will result in a higher overall town wide population than projected in the LUMAC Technical Report. This will result in impacts to municipal services, roadways and the school system. Specific impacts and mitigation measures will be outlined in the appropriate portions of Section II of the DGEIS.

Proper planning will tend to mitigate the potential impacts of development. The analysis of projected growth will allow the Town to evaluate financing alternatives to fund potential extensions of utilities, increased municipal services, and transportation system improvements. As a result, new development will fund its fair share of improvements which will result in adequate services to meet the needs of all residents in the study area.

LAND USE AND ZONING:

Land use in the project study area includes residential, commercial, and abandoned and active agricultural lands. Specifically, existing land use is characterized as follows in the LUMAC Technical Report,

"Most of the intensively developed portions are confined to Route 9, Boght Road, Dunsbach Ferry Road, Fonda Road, and Columbia Street/Alternate Route 7. The majority of this linear development is comprised of medium-density residential development located in and around Boght Corners, Dunsbach Ferry Road and Crescent Station. Also located along these corridors are varying amounts of commercial, office development and institutional uses. The heaviest concentration of commercial and office development is located north of Columbia Street/Alternate Route 7 and south of Dunsbach Ferry Road. This area is comprised of various car dealerships restaurants, motels and office developments; (ie. Century Hill). North of Dunsbach Ferry Road, various activities are dispersed along Route 9 and include home businesses, neighborhood commercial, Guptill's Entertainment Center, several motels, and agribusiness."

In order to fully assess impacts of future development, the population projections specified in Section II, A, Demographics, were used to develop future land use scenarios for 1999 and 2009.

The criteria used to develop the future land use scenario for the study area included analyzing land use patterns, projected land uses in the LUMAC Future Land Use Plan, currently proposed projects, and the location of utilities. These land use projections are utilized as the basis for determining other impacts outlined in this DGEIS.

The following zoning districts are included in the study area:

Residence A-2

Residence A-3

Residence B-1

Business E

Business E-1

Business E-2

Industrial F

Business G

Undeveloped

In regard to future zoning of the project study area it is assumed that the future zoning code will be reflective of the recommendations of the LUMAC Technical Report and Future Land Use Plan. Therefore, there are no direct impacts to zoning expected from the projected future development.

TOPOGRAPHY/GEOLOGY/SOILS:

Terrain in the Boght Road - Columbia Street area is generally flat to rolling ranging in elevation from one hundred eighty (180) feet to four hundred

forty (440) feet above sea level. The lowest elevations and steepest slopes are generally associated with the Dry River area. These elevations range from one hundred eighty (180) feet to two hundred thirty (230) feet above sea level and slopes are all less than fifteen (15) percent.

According to the Town of Colonie Environmental Inventory Technical Report, two (2) types of bedrock are found within the project study area, shale and sandstone layers. Bedrock generally forms stable slopes and is relatively impermeable. Bedrock ranges to depths greater than twenty (20) feet.

Diversity of soil types result in a variety of conditions. Thickness of soils range from zero (0) to greater than twenty (20) feet. In addition, certain soil types are well drained while others are poorly drained and permeability ranges from rapidly permeable to slowly permeable.

Changes in land use will have an impact on the topography, geology and soils of the project study area. The flat to rolling topography will present few obstacles for construction as slopes are nearly all less than fifteen (15) percent.

In order to maintain the natural topography to the maximum extent possible, site plans should be designed that will include existing vegetation and topography. This can include the use of cluster developments, recreation and open areas, and maintaining existing elevation whenever possible.

Any areas where developers propose to blast in order to construct residential or non-residential facilities should be closely monitored by the Town. Removing bedrock by blasting results in the transmission of vibration through rock which can potentially damage nearby structures. It is recommended that the Town

require developer to adhere to the United States Bureau of Mine blasting procedures in order to preclude vibration impacts to nearby structures and residents. These procedures include:

- o Notification of residents prior to blasting
- o Pre-blast crack survey of nearby structures
- o Provision of public contact for information
- o Test blasts to determine amount of explosives required
- o Avoidance of surface (air) blasts
- o Maintenance of a peak particle velocity of no more than two (2) inches per second at the structures of interest

Site clearing in preparation of construction can result in erosion problems, which affect not only the site but the receiving streams. Mitigation measures include: site clearing immediately prior to construction, site clearing in phases for large projects, prompt re-establishment of grasses and other ground covers and the use of hay bales and silt fences to protect receiving streams.

To mitigate impacts of seasonal high groundwater in certain soils, the Town could require that homes and businesses be constructed with proper foundation drainage in place to reduce the potential for wet or flooded basements. Some areas may not be conducive to basement construction which would facilitate the use of slab-on-grade construction. Wet soils create severe limitations for the installation of septic systems. In these areas connection to the Town of Colonie Pure Waters Department system or the Albany County Sewer District System should be considered.

Sandy soils with poor filtering qualities also create problems for septic system construction. If connection to a sewer system is not feasible the size of

the leach field should be increased to reduce the effluent application rate and allow proper biological treatment to occur. Suitable soils may also be imported in order to construct the system.

Slope stability was also evaluated and ranked according to the potential for slope failures. The criteria examined included bedrock evaluation, soil type and topography. Areas where depths to bedrock are relatively deep, slopes are steep and soil types are prone to slippage such as silts and clays, have the highest potential for slippage. In these areas it has been recommended that site specific slope stability analyses be completed prior to approvals for grading and construction of a given development project. Typical restrictions that may result from this analysis include the following:

1. No development of existing ground or removal of existing ground cover should be allowed below the top of any slope found to be potentially unstable.
2. Site grading should be accomplished in such a manner to prevent the possibility of concentration of site drainage at the top of any potentially unstable slope. Underbrush should be cut to within ten (10) feet of the top of such a slope. Care must be taken in the development of lawn areas to prevent conditions at the top of a slope which might lead to concentration of drainage and development of erosion rills.
3. All collected storm or foundation drainage should be directed to the bottom of all slopes in adequately designed and sized structures. In most cases, ditches or swales should be lined with crushed stone and/or rip rap.

4. Site grading should prevent the impoundment or puddling of storm runoff, to inhibit the infiltration of water into site soils. If recharge basins are found to be required for a specific site, a detailed analysis of groundwater seepage from such structures as well as any impacts on adjacent slopes should be required.
5. Earth fills should generally be limited to those for landscaping purposes only. Typically, earth fill should be allowed to within ten (10) feet of the top of a slope. Fill grading beyond this point should usually be limited to gently sloping grades away from the top of a slope. Maximum fill heights should be determined based upon additional analysis as previously described.
6. Typically, no structures or earth embankments should be constructed closer than twenty-five (25) feet to the top of a potentially unstable slope. This restriction should be verified by additional slope stability analysis including soil testing, based upon in-situ soil strengths.

Utilizing the steps described above and requiring site specific slope stability analyses for areas with a high potential for slope failure, will result in site plans that mitigate or avoid areas which have unstable slopes. As a result structures as well as soils and streams will be protected.

VEGETATION AND WILDLIFE:

Vegetation in the undeveloped portions of the project study area is a mix of cropland and pasture, vacant grassland and brush, and to a lesser extent, deciduous forests. Cropland and pasture is the largest existing undeveloped land use. These lands are found on the east side of Route 9 beyond the strip-type commercial development adjacent to the highway. To the west of Route 9, beyond the

highway development, a large area of cropland and pasture is located between Boght Road and Schemerhorn Road. Additional cropland and pasture is located on both sides of Boght Road south of St. Agnes Highway. Cropland east of Boght Road extends as far south as Route 7. Several other areas are located south of Route 7 in the vicinity of Haswell Road.

Several sources of information were utilized to develop a list of potential wildlife that may inhabit the project study area. Information gathered from the Town of Colonie Environmental Inventory Maps, the NYSDEC Wildlife Resources Center, a comparison of species habitat requirements with existing habitat and other studies completed in the region were all compiled to identify potential wildlife species.

In order to identify potential rare or endangered species and significant habitat, the NYSDEC Wildlife Resources Center reviewed their Significant Habitat Program and Natural Heritage Program files. In regards to wildlife, no potential impacts on endangered, threatened or special concern species, rare animal or natural community occurrences, or other significant habitats were identified in the study area. One potential rare plant was identified in the vicinity of the study area, although an examination of its habitat requirements makes it unlikely that this plant would be found within the study area boundaries. The above information should be used as a guide and should not preclude the requirement for an on-site survey when a specific development proposal is under consideration.

Methods of protecting and providing for wildlife habitat include Town acquisition of certain parcels, lower density developments along with clustering and other unique site designs in order to maintain as much natural vegetation and topography as possible. Protection can also be given to certain large parcels of land in private ownership in order to maintain open space and wildlife habitat.

This may include tax incentives for reduced development rights or transfer of developments rights by allowing higher density development in one area and reducing the allowable density in another.

Due to the fact that no rare or endangered plant, animal species or significant habitat have been identified in the project study area and the requirement for additional studies in sensitive areas, it is unlikely that there will be a significant impact to rare or endangered species. The large amount of development that is expected over the next twenty (20) years will result in reduced availability of habitat and thus reduced wildlife population. Proper stormwater management, erosion control techniques and the maintenance of as much natural vegetation as practical will mitigate potential problems resulting from removing vegetative cover.

GROUNDWATER:

The depth to seasonal high groundwater in the study area varies from zero (0) to four (4) feet and over four (4) feet. The majority of the lands within the study area have a seasonal groundwater table in excess of four (4) feet from the surface.

The study area is not regarded as a site of a primary aquifer due to the presence of silty soils associated with a glacial till. Primary aquifers are defined by the NYSDEC as sources of groundwater which can yield in excess of ten (10) gallons per minute on a steady basis. The presence of these soils also limits the recharge of the groundwater in this area by reducing the permeability of the soil and preventing downward percolation. Due to the soil limitations, stormwater which is unable to percolate quickly runs off to surface streams and is carried

from the area. The only notable exception to this situation occurs in the southwestern portion of the Town (Maplewood area) where the presence of drumlinized till enhances percolation and the area is therefore considered a recharge area.

In an effort to minimize the potential for impacts to groundwater, the Town should consider certain factors when reviewing development plans. These factors should include the identification of areas that will require excavation below the water table and the identification of land uses which could have the potential to store containments on-site. When potential impact situations are identified, specific mitigation measures should be employed. These include: require minimum separation of two (2) feet between the seasonal high water table and basement foundations; require slab-on-grade construction when the above referenced separation is not practicable; if standard septic system construction is not feasible in areas of seasonal high groundwater, fill systems meeting Albany County DOH standards should be required; require curtain or french drains around proposed septic systems in appropriate areas; to maintain road integrity, require underdrain in appropriate areas; if private water supplies are desired for single family residences require verification of groundwater quality and quantity from on-site pump testing; and require proper containment for contaminants associated with any new development during pre and post construction periods, ie., containment for above ground tanks and proper tank design for underground tanks.

SURFACE WATER & DRAINAGE:

This section addresses the impact that development places on the study area with respect to increased stormwater flows. Detailed estimates of the volume and rate of stormwater runoff under existing and proposed conditions, and methods of mitigating the impacts are included in Appendix 3. Design parameters for the proposed facilities have been made in accordance with the ordinances of the Town of Colonie and the regulations of the NYSDEC.

The basic element to consider in developing a stormwater management plan for the study area is limiting peak flows at the study area limits to their current levels or below. It may also be desirable to limit flows at certain points within the study area to their current levels or below to minimize the degree of improvements required in the lower reaches of the drainage area. Any stormwater management plan implemented by the Town should be in compliance with current Town stormwater management requirements and NYSDEC regulations where applicable.

In order to create and execute an effective regional stormwater management plan for the study area, a plan of implementation needs to be adopted. A basic plan for the establishment of centralized facilities is presented below. The objectives of this plan are the same as the watercourse protection law presented in the LUMAC Technical Report.

Basic Plan for Implementation of Centralized Stormwater Facilities

- o Enact ordinance requiring future development's compliance with the regional concept of stormwater management within the watershed.
- o Commission a detailed hydrologic/hydraulic analysis for the watershed which would detail alternatives and costs for centralized facilities within the watershed.
- o Town selects stormwater management alternative to be implemented.
- o Acquire land/easements for the centralized facility.
- o Solicit bids for the construction of facility.
- o Enact ordinance establishing rate structure for developers contribution based on detailed hydrologic/hydraulic analysis mentioned above.
- o On-going contributions by developers for payback of initial construction costs and ongoing maintenance.

Enacting a stormwater management plan will result in other benefits. Regional stormwater management facilities could potentially serve as public recreation facilities. The detention of excessive stormwater runoff can be used to recharge groundwater (if soils are suitable), create or mitigate adequate wetland water levels, and retain valuable topsoil before it reaches major adjacent watercourses.

TRANSPORTATION:

The Boght Road - Columbia Street area is served by an extensive network of highways including limited access facilities such as Interstate 87 and Alternate Route 7, major arterials such as U.S. Route 9 and New York Route 2, and collector streets such as Boght Road, Miller Road and Johnson Road. The existing development in the area primarily consists of residential uses with the exception of community/service retail uses located along the Route 9, 9R and Route 2 corridors.

Due to the combination of highway accessibility and existing land use, the private automobile is the primary means of transportation in the Boght Road - Columbia Street area. While bus service is available, less than two (2) percent of workers living in the study area currently use the bus for the home to work commute. Unless there is a drastic change in the transportation patterns in the area, the private automobile will continue to be the transportation mode of choice. Therefore, existing and projected future traffic conditions on the roadways in the Boght Road - Columbia Street area have been evaluated.

Data was collected from the New York State Department of Transportation and the Capital District Transportation Committee. Traffic count data was also collected at twelve (12) intersection locations within the project area by Clough, Harbour & Associates.

U.S. Route 9 carries the most traffic of the roadways within the study area, with an Average Annual Daily Traffic flow in excess of twenty six thousand (26,000) vehicles per day (VPD) where it crosses over New York Route 7. New York Route 9R/Columbia Street also carries a significant volume of traffic, almost thirteen thousand (13,000) VPD. Of the roads maintained by the Town of Colonie, Johnson Road (five thousand seven hundred fifty (5,750) VPD), Old Loudon Road, (five thousand five hundred (5,500) VPD), and Swatling Road (three thousand six hundred (3,600) VPD) have the heaviest traffic flow.

Locations that are exceeding statewide accident averages include the following intersections: Route 9/I-87/Route 9R, Route 9/Boght Road, Route 9R/St. Agnes Highway/Baker Avenue, Boght Road/Elm Street/Haswell Road, Haswell Road/Swatling Road and Boght Road/Johnson Road/St. Agnes Highway. In addition the Route 9 from I-87 Access/Route 9R to Dunsbach Ferry Road, Route 9R from Route 9 to Johnson Road and Route 9R from Manor Avenue to Route 9, Pollock Road and Dunsbach Ferry Road links are all experiencing higher numbers of accidents than statewide averages.

To determine the ability of the roadways in study area to accommodate the existing and projected traffic demands, the procedures established in 1985 Highway Capacity Manual were used. These procedures use volume to capacity ratio (V/C ratio) and average delay per vehicle to describe the operating conditions for signalized intersections, V/C ratios for midblock locations and "Reserve Capacity" for unsignalized intersections. The volume-to-capacity ratio is defined as the relationship between peak hour traffic volume and the maximum capacity of an intersection approach or midblock location.

Future traffic volumes were developed based on projected land uses for existing vacant lands within the study area and corresponding vehicles trip

generation associated with the type and density of development. As a result of the above mentioned future traffic conditions, numerous roadway improvements have been suggested. Improvements required during planning period 1 include: the construction of a new east-west connection between Vliet Street and Route 9; turning lanes on Route 9 at Boght Road, Century Hill Drive and NY Route 2 and Swatling Road; left turn lanes at all approaches of the Columbia Street and Baker Avenue intersection; widening of Route 9, 9R and Johnson Road and realignment of Dunsbach Ferry Road at Route 9 to meet Vliet Street. Three (3) full color traffic signals will also be required at Old Loudon Road and Latham Ridge Road, Old Loudon Road and Cobbee Road, and Miller Road and Johnson Road.

Required improvements during planning period 2 include: the widening of Route 9 to three (3) lanes in each direction from Columbia Street to Boght Road; left turn lanes at Route 9R and Vliet Street extension; right turn lane at the southbound approach of the Columbia Street and Baker Avenue intersection; realignment of the Johnson Road and Boght Road/St. Agnes Highway intersection to include a left turn lane, a traffic signal and a conventional "T" intersection; widening of the Miller and Johnson Road, and the NY Route 2 and Swatling Road intersections; realignment of the Miller Road and Haswell/Swatling Road intersection including the installation of a traffic signal and left turn lanes on Loudon Road at Cobbee Road and Latham Ridge Road. In addition, three (3) full color traffic signals will be warranted at the Miller Road and Latham Ridge Road, Haswell Road and Boght Road and the Boght Road and Baker Avenue intersection.

In order to continue to maintain efficient traffic flow it is apparent that some local streets will have to be viewed as urban collectors or minor arteries. Access will have to be controlled on Loudon Road, Johnson Road, St. Agnes Highway, Swatling Road and Miller Road to maintain their ability to accommodate projected traffic flows.

In addition to the above transportation systems management techniques could also be implemented. These include ride-sharing programs, variable work hour programs and transit programs. These programs can reduce traffic at peak hours and help maintained efficient traffic flow through the project study area.

UTILITIES

Electric service and natural gas are supplied to the study area by the Niagara Mohawk Power Corporation (NMPC). New York Telephone (NYT) is responsible for telephone service while Latham Water District is responsible for water supply, and the Town of Colonie Pure Water Department and Albany County Sewer District are responsible for sanitary sewage.

NMPC and NYT will be responsible for major capital improvements resulting from future development during the two (2) planning periods. Required improvements to water conveyance and storage, and sanitary sewage collection and treatment from future development is expected to be undertaken by the development directly responsible for required improvements. Potential funding mechanisms are discussed further in the Section II, M, Economics.

NMPC personnel have indicated that the Latham office of the NMPC Electric Distribution Division is planning the construction of a new power substation just north of the Mohawk River along Route 9 during planning period 1. The substation will not only supply power to a variety of future developments in the immediate surrounding area but will tie into the northern end of the study area with a 13.2 KV distribution line to provide a multi-feed loop system in the area and provide *power for future increased demand.*

The Johnson Road substation is the primary source of electrical power in the study area. NMPC will install one additional 13.2 KV distribution line to this substation to meet the anticipated electrical demands of planning period 2.

The NMPC Capital Region Gas Planning Unit has indicated that they do not foresee any difficulties with supplying natural gas for the projected development demands within the study area. NMPC has stated that they will supply gas to future customers by installing new mains where they currently do not exist or by upgrading the existing system.

NYT has scheduled the construction of an underground fiber optic cable to be installed along Route 9 from the Latham Central Office located east of the Latham Traffic Circle and extending north to the Mohawk River to be completed by December 1989. NYT has indicated that with the installation of this new fiber optic cable, facility demands can be met until the year 2019.

In order to meet the projected additional water demand, the LWD will apply to the NYSDEC for permission to draw additional raw water from the Mohawk River. An expansion to the Mohawk View Filtration Plant during planning period 1 is also being considered. Storage facilities will also require improvements. The LWD projects that the Boght Road standpipe should be replaced with a one (1.0) MG standpipe in order to maintain adequate storage through both planning periods.

Water transmission line improvements will also be necessary. To meet 1999 demands, the twenty-four (24) inch main near the Colonie Bicycle Path must be connected to the existing main at the intersection of Old Loudon Road and Columbia Street. During planning period 2, a waterline connecting the main at Route 9 and Fonda Road to the main at Johnson Road and Miller Road will be necessary.

Distribution improvements during planning period 1 will involve new or replacement connections on Haswell Road between Harvard and Boght Roads, Boght Road from Elm Street south, Route 9R from Johnson Road to St. Agnes Highway, Route 2 between Swatling Road and Western Avenue, and Western Avenue to Haswell Road. Planning period 2 requirements are less extensive and include increased sized lines

along Fonda Road from Route 9 to the Cohoes City line, and from the intersection of Boght Road and Route 9 east on Boght Road also to the Cohoes City line.

The Town of Colonie Pure Waters Department has indicated that the sanitary sewer system currently has the ability to adequately serve the projected demand through 1999. Upgrades to approximately four thousand (4,000) lineal feet of the Salt Kill/Dry River Truck sewer east of Lansing Lane may be required to meet projected demands through 2009.

MUNICIPAL SERVICES:

Municipal services are an important part of daily community life. The Town of Colonie provides a wide range of municipal services including police and fire protection, schools, and solid waste disposal. As development within the study area takes place, municipal services can be impacted in several ways including an increase in use of facilities or services and the need for new facilities or services.

An analysis of the study area and the related services by the Town indicates the impact to the North Colonie School District to be significant. New facilities with additional staff are anticipated. Other services such as police protection, fire protection and solid waste disposal facilities will also be impacted and will require improvements or new facilities.

In order to off-set anticipated impacts, the Town of Colonie will be required to expend municipal funds. Municipal funds are generated through the collection of taxes. A projection of future tax revenues resulting from anticipated new development indicates that school district operational as well as required improvement costs will be higher than tax and other revenues. On the municipal side, revenues including property tax revenues collected by the Town will be greater than the municipal costs associated with new development.

To meet anticipated need, tax rates could be increased to eliminate shortfalls within the budget. An alternative to increases in the tax rates could be the implementation of a revenue generating mechanism or impact fee. This type of mechanism or fee can collect monies based on a cause and effect relationship to various municipal services.

HISTORICAL AND ARCHEOLOGICAL CONSIDERATIONS:

As a result of a literature review, site file search and contact with local historians for the study area by Hartgen Archeological Associates, Inc., four (4) prehistoric archeological sites, one (1) historic Archeological site, twenty five (25) historic structures and eight (8) cemeteries were identified. National Register properties in the study area include the Simmons House, Szmyr Residence, Haswell House and Dunsbach House. The above referenced National Register properties are also located within the Town of Colonie National Register Multiple Resource Area which includes twenty-seven (27) properties scattered throughout the Town of Colonie as well as the entire Menands Park Historic District.

In areas where the probability of finding prehistoric materials is high, a site specific 1A/1B Cultural Resources Survey should be required as part of the review process for specific development proposals.

If cultural resources are found as a result of the above mentioned surveys, mitigation measures are normally outlined as part of the Stage 1A/1B report. These measures may include but are not limited to avoiding construction activities in the affected area of the site or filling the affected area to limit the potential for future disturbance. Depending on the type and extent of cultural resources found, the Stage 1A/1B Cultural Resources Survey may recommend a Stage 2 Archeological Study which involves a dig and is much more intensive than the 1B Survey.

AESTHETICS:

The project study area from an aesthetics classification can be considered as sprawling open space with low density development concentrated along the major highway corridors. Although the project study area has similar characteristics throughout, several unique viewsheds have been identified as follows:

1. I-87 corridor from Exit 7 to Century Hill Drive.
2. Route 9 corridor (south) from Route 7 to Dunsbach Ferry Road.
3. Route 9 corridor (north) from Dunsbach Ferry Road to Fonda Road.
4. Route 9 corridor viewing east to Rensselaer County.
5. Miller Road from Haswell Road north to Route 7 viewing east to Rensselaer County.
6. Route 7 corridor form Route 9 east to Elm Street.

In order to reduce potential impacts to aesthetics from future development, the following mitigation measures could be considered.

- Limiting the number of curb cuts along major highway corridors.
- Encourage proper circulation of interior subdivision roads which permits the design of residential lots that are sensitive to existing drainage patterns and minimize disturbance to natural vegetation and buffer zones, and maximizes existing topographic conditions to create a more imaginative design.
- Encourage circulation of interior subdivision roads that avoids typical grid type pattern layout.
- Encourage cluster type development where appropriate so as to protect existing vegetation, scenic views, and natural drainage courses.
- Encourage the use of buffer zones between residential and commercial land uses. Also encourage the maintenance of natural vegetation cover

or enhancing the existing vegetation with additional landscaping in these buffer zones.

- Require all new development to install electric, telephone and cable TV utilities underground.
- Require parking for commercial and retail land uses to be located behind the building along with proper screening (ie. berms, landscape, fencing) of the parking lots.
- Require a specific setback in commercial zones corridors to maintain the openness of the road while reducing the number of roadside distractions.

RECREATIONAL RESOURCES:

Currently, the Town of Colonie maintains several public recreational resources, including the Town Park, Municipal Golf Course, and Community Center. Approximately (15) pocket parks are located throughout the Town, providing public recreation facilities for specific neighborhoods.

According to Town of Colonie Recreation and Parks Department officials, the Town will most likely continue the current trend of creating pocket parks where necessary rather than enlarge the municipal park. It appears that a minimum of fifteen (15) acres of additional pocket parks will be necessary to provide adequate public recreational facilities for the anticipated growth in the study area. Fees or contributions of cash or property by a developer for the development of pocket parks are potential mechanisms for funding such parks.

Use of the Town swimming pool is currently at or above capacity, and the anticipated future growth will amplify the existing problems. As the demand for public pool facilities increases with the future population growth, the Town may consider construction of additional facilities.

The Town of Colonie Municipal Golf Course is currently utilized below or near capacity, experiencing only occasional waiting periods during peak hours. Current use is reflective of recreation standards, which indicate a twenty-seven (27) hole course should effectively service a population of seventy-five thousand (75,000) (U.S. Department of the Interior, 1967). As a result of the anticipated population growth (ninety eight thousand seven hundred fourteen (98,714) by 2009) the course will not meet recreation standards and is likely to be utilized above capacity. One option to alleviate potential problems and help meet the standards is the construction of an additional nine (9) holes.

The cross country ski trails at the Town Golf Course which are maintained during the winter appear to be adequate for the near future. If these trails at the Town Golf Course become overutilized as a result of population growth, the Town may consider extending the trails over the course. In light of the anticipated growth in the study area, it may benefit the Town to consider maintaining trails through the Town Park.

While it is difficult to project a population figure at which the Community Centers facilities will be inadequate, Town officials have indicated an existing need for gymnasium and swimming facilities. It is anticipated that future growth will increase the demand for additional community center facilities.

ECONOMICS:

New commercial and residential development will result in additional municipal and school costs and revenues. A model developed by the Capital District Regional Planning Commission was utilized to predict these costs and revenues. It is anticipated that maintaining the same levels of service through both planning periods will result in additional revenues for the Town and additional costs for the school district.

This model does not consider any necessary capital improvements for items such as the extension of water or sewer lines, new school buildings and required increases in personnel. However, a variety of funding mechanisms for these capital improvements have been examined. These include impact fees, development excise taxes and negotiated developer contributions. Costs and funding discussed above are related to improvements to transportation systems, utilities (sewer, water, natural gas, telephone and electric), municipal services (schools, fire departments, ambulance corps and police departments), and recreational facilities.

In addition "Development Mitigation Costs" have been formulated in the areas of surface water and drainage, transportation, sewer, water, solid waste disposal, recreation education and the DGEIS preparation. These costs are based on residential, commercial and industrial users and are outlined in Section. II, M, Economics. Surpluses from the annual budget may be applied to one or more development costs. Building trends must be monitored on an annual basis to ensure that the estimated costs remain accurate through the twenty (20) year planning period and that budget surplus are properly applied to these costs.

ALTERNATIVES:

Several alternatives for the proposed action have been evaluated. These include varying development densities for the planning periods and the no action alternative.

Varying development densities were evaluated for 1999 and 2009. This involved a discussion of projected growth above and below development levels used as a basis for the impact and mitigation measures section of this document. The Town can choose to reduce densities through zoning changes. This method ensures that Development Mitigation Costs are consistent with Town goals and policies.

Four (4) growth alternatives were evaluated to determine an appropriate growth scenario for the study area. These included utilizing growth rates of 5.6 percent and 30 percent, full build out and the chosen alternative. The chosen alternative considered current development proposals, physical characteristics, the amount of undeveloped land within the study area compared to the remaining lands of the Town and availability of services such as sewer and water.

The no action alternative was also discussed. Potential impacts of the no action alternative were evaluated.

In addition, as part of Section II, M, Economics, a description of alternative methods for funding improvements associated with future development is provided. The alternative funding mechanisms discussed include impact fees, development excise taxes and negotiated developer contributions.

CUMULATIVE AND GROWTH INDUCING IMPACTS:

As a result of the anticipated development within the study area, various infrastructure components and other community facilities will experience cumulative impacts. Specifically, these impacts will include increases to area traffic, community density, stormwater run-off and an increase in the demand for municipal services and utilities. In addition, impacts to vegetation, wildlife, historical and archaeological features, and aesthetics will also be realized. Impacts to the above cited community facilities will vary depending upon the actual development that takes place and the mitigation measures that are employed.

The development of new residential dwellings and commercial establishments within the study area may result in new growth throughout the Town of Colonie. Commercial growth may result from the additional demand for goods and services required by the increased population. New residential development can be expected

to take place as developers capitalize on the overall growth of the area. Where large undeveloped properties are unavailable in-fill development will take place.

Four (4) growth scenarios were evaluated to project population through both planning periods. The alternatives considered included a 5.6% growth rate, full build out, a 30% growth rate and the chosen alternative. The chosen alternative considered a variety of factors including currently proposed development projects, the large amount of undeveloped land, utility locations, transportation, access and other physical characteristics.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES:

The addition of three thousand seven hundred fifty (3,750) housing units and two million eight hundred seventy-five thousand (2,875,000) square feet of commercial, retail, industrial, and transitional uses will result in the irreversible and irretrievable commitment of a number of resources. The largest commitment of a natural resources will be the transformation of land from an undeveloped or low intensity use to a developed state, either residential or commercial. This land will then be unavailable for other uses.

Construction of new development will require building materials, the use of energy, and man-hours. During construction and upon completion, the new developments both residential and commercial will require services: water, sewer, electricity and gas as well as provisions for solid waste disposal. The resources committed for these projects will be unavailable for other uses.

Development will also have an impact on financial resources. Money (either public or private) expended on these projects will be unavailable for other projects. However, the financial expenditures to build and operate these new ventures should generate revenue to owners and employees of business and to the Town in the form of property taxes. In addition, future development will be

required to pay its fair share for infrastructure, roadway and other improvements associated with that development.

UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS:

The current undeveloped nature of the project site will be altered as a result of projected future development. Open lands and active agricultural lands will be developed. Agriculture production will be lost.

Future development in the project study area will facilitate the removal of existing vegetation which in turn may displace wildlife. Vegetation such as forest, brush, cropland, and pasture will be converted to residential, commercial and industrial uses.

While there have been no rare, threatened, or endangered animal species identified to date through contact with the NYSDEC Wildlife Resources Center in the study area, it is expected that common animal species will be displaced as a result of future development. It is anticipated that some of these species will be displaced to other undeveloped areas, some will be displaced outside the study area and some will die as a result of increased competition.

Significant increases in traffic are expected in the project study area as a result of future development. While roadway improvements will reduce associated impacts, the overall volume of traffic will increase.

Future development of currently undeveloped lands will change the aesthetic character of the study area. While mitigation in the form of landscaping, berms and architectural styles will reduce impacts, they will not eliminate them.

FUTURE SEQRA ACTIONS IN THE STUDY AREA:

According to Section 617.15, (b), of SEQRA, "Generic EIS's and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, and shall include procedures and criteria for supplements to reflect impacts, such as site specific impacts, which have not been adequately addressed or analyzed in the generic EIS." As future development is proposed, the lead or responsible agency will be required to ensure that the requirements of Section 617.15 of SEQRA are properly satisfied. This will require interpretation by the lead or responsible agency of the findings statement that was prepared for the Boght Road - Columbia Street GEIS as it specifically relates to the individual development being proposed.